MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015/2016

DCS5148 – INTRODUCTION TO INFORMATION SYSTEMS

(For Diploma Students Only)

5 MARCH 2016
2.30 p.m. – 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT :

1. This question paper consists of **TEN (10)** pages excluding the cover page.

2. There are **TWO (2)** sections in this booklet.

   SECTION A: There are **FORTY (40)** MULTIPLE CHOICE questions (40 marks). Answer **ALL** questions in the OMR provided.

   SECTION B: There are **FOUR (4)** STRUCTURED questions (40 marks). Answer **ALL** questions in the answer booklet provided.

Section A: Multiple Choice Questions (Total: 40 Marks)

Instruction: Please shade your answers on the OMR sheet provided.

1. Which business career fits the skill described below?

"able to work with databases for tracking and reporting product performance and customer behavior"

A. Management
B. Operation management
C. Marketing
D. Accounting

2. Which of the following business objectives fits this statement?

"The company is able to charge less for superior products and better response to suppliers and customers"

A. New products and business models
B. Operational excellence
C. Customer and supplier intimacy
D. Competitive advantage

3. "Many companies today have web-based digital dashboard to update managers with real-time data on customer complaints, network performance, and line outages". These companies try to achieve _____.

A. operational excellence
B. improved decision making
C. survival
D. competitive advantage

4. Which of the following is **NOT** part of the implementation step in the problem-solving process?

A. Length of time needed to implement solution.
B. Testing solution and employee training.
C. Building or purchasing solution.
D. Change management.

5. An information system can be defined technically as a set of interrelated components that collect (or retrieve), process, store, and distribute information to support _____.

A. communications and data flow
B. the creation of new products and services
C. managers in analyzing the organization's raw data
D. decision making and control in an organization

Continued.....

6. The statement below **BEST** describes _____.

> *"System that records the data from everyday operations throughout every division or department in the organization."*

A. Transaction processing system
B. Management information system
C. Decision support system
D. Executive support system

7. The five basic entities that make up any business are suppliers, customers, employees, products and services, and _____.

A. its environment
B. manufacturing and production
C. sales and marketing
D. invoices and payments

8. "Promoting the organization's products or services" is the responsibility of _____.

A. human resources
B. finance and accounting
C. sales and marketing
D. manufacturing and production

9. Which of the following is **NOT** a cross-functional business process?

A. Fulfilling a customer order
B. Identifying a customer
C. Approving a customer credit request
D. Creating an employee salary slip

10. Which of the following **BEST** describes enterprise systems?

A. Systems which are used to bridge the communication gap between all departments and all users of information within a company.
B. System which offer new opportunities for companies to integrate data and information with their suppliers and customers and ultimately, lower costs for everyone.
C. Systems that allow an organization to fully integrate their newly acquired knowledge into the current systems.
D. Systems that give a company the added advantages of end-to-end customer care.

11. Companies like Boeing and Airbus may be least concerned about which of the following marketplace forces?

A. Low number of suppliers
B. Product differentiation
C. Traditional competitors
D. New market entrants

Continued.....

12. Which of the following illustrates the use of information systems to achieve product differentiation?

A. Domino's Pizza is use information systems to determine which types of pizza and topping its customers are most likely to buy.

B. Nike is use information systems to sell custom built, made-to-order shoes directly to customers.

C. Dell is use information systems to facilitate direct access from suppliers to production schedules.

D. Tesco is use information systems to produce products and services at a lower price than competitors.

13. When a firm greatly changes the customer convenience and experience with existing products and services, it is using the _____ strategy.

A. mass customization
C. market niche
B. product differentiation
D. process efficiency

14. Mandarin Oriental Hotel use of customer information software to serve their customers better is an example of using information systems to _____.

A. strengthen customer intimacy
C. focus on market niche
B. differentiate their service
D. increase efficiency

15. There is not much newspaper sold today in the market and the number of people purchasing newspaper from the newspaper stand is getting lesser. To what competitive force has the printed newspaper industry lose to?

A. Low cost of entry.

B. Customer's bargaining power.

C. Substitute products or services.

D. Positioning and rivalry among competitors.

16. The use of the Internet and Web to transact business; digitally enabled transactions is called _____.

A. management information system
C. e-commerce
B. enterprise applications
D. e-business

17. Which is **NOT** one of the unique features of e-commerce technology?

A. Richness
C. Universal standard
B. Interactivity
D. Information asymmetry

Continued.....

18. Creating a product based on user's preferences or prior behavior on the Internet is called _____.

A. customization
B. information density
C. personalization
D. information richness

19. Individuals use _____ sites to expand the number of business or social contacts by making connections through other people.

A. business-to-consumer e-commerce
B. social networking
C. consumer-to-consumer e-commerce
D. online syndicators

20. Single, digital marketplaces based on Internet technology for many different buyers and sellers are called _____.

A. electronic data interchanges
B. private exchanges
C. private industrial networks
D. net marketplaces

21. Company ABC is planning to introduce a new product in the market in order to be more competitive. Deciding whether to introduce a new product line has to be done carefully. This is an example of a(n)_____.

A. unstructured decision
B. nonprocedural decision
C. procedural decision
D. semistructured decision

22. Which phase of the decision making proses deals with identifying and exploring various solutions?

A. Design
B. Implementation
C. Choice
D. Intelligence

23. _____ is used by big online business for customer recommendation system.

A. Fuzzy logic
B. Big data analytics
C. Location analytics
D. Genetic algorithms

24. _____ are designed to deal with problems of classification in which there are relatively few alternatives outcomes and in which these possible outcomes are all known in advance.

A. Neural networks
B. Knowledge-based systems
C. Expert systems
D. Fuzzy logic systems

Continued.....

25. A firm would most likely use _____ to automate routine tasks to help firms search for and filter information for use in electronic commerce and supply chain management.

A. genetic algorithms
B. fuzzy logic systems
C. CAD systems
D. intelligent agents

26. As a technical project manager you have decided to use prototyping methodology for a small Web-based design project. What is the order of steps that you will follow in this project?

I. Use the prototype.
II. Develop an initial prototype.
III. Revise and enhance the prototype.
IV. Identify the user's basic requirements.

A. III, IV, II, I
B. IV, III, II, I
C. IV, II, I, III
D. II, IV, I, III

27. The statement below refers to _____.

> *"Modeling and designing system that provides developers with an easy to use method of developing software code that is well-documented, well-designed, and easily reused."*

A. structured methodologies
B. object-oriented development
C. rapid application development
D. computer-aided software engineering

28. When systems are created rapidly, without a formal development methodology; _____.

A. testing and documentation may be inadequate
B. end users can take over the work of IT specialists
C. the organization quickly outgrows the new system
D. hardware, software, and quality standards are less important

Continued.....

29. Project management _____.

A. specifies how the new system will fulfill the information requirements

B. is a method for deciding among alternative systems based on a system of ratings for selected objectives

C. is the process of creating workable information systems in a very short period of time

D. refers to the application of knowledge, skills, tools, and techniques to achieve specific targets within specified budget and time constraints

30. A PERT chart _____.

A. portrays a project as a network diagram consisting of numbered nodes that represent tasks

B. tracks progress of, and modifications to, project tasks

C. displays a horizontal bar for each project task

D. is used to evaluate project risk and time

31. All of the methods, policies, and organizational procedures that ensure the safety of the organization's assets, the accuracy and reliability of its accounting records, and operational adherence to management standards refer to _____.

A. vulnerabilities
C. controls
B. legacy systems
D. SSID standards

32. An independent computer program that copies itself from one computer to another over a network is called a _____.

A. Trojan horse
C. pest
B. worm
D. bug

33. Misrepresenting oneself by using fake e-mail addresses or pretending to be someone else refers to _____.

A. hackers
C. sniffer
B. cybervandalism
D. spoofing

34. Which of the following is **NOT** a type of general controls?

A. Policy controls
C. Software controls
B. Hardware controls
D. Data security controls

Continued.....

35. Implementation controls _____.

A. formalize standards, rules, procedures, and control disciplines to ensure that the organization's general and application controls are properly executed and enforced

B. ensure that valuable business data files on either disk or tape are not subject to unauthorized access, change, or destruction while they are in use or in storage

C. monitor the use of system software and prevent unauthorized access of software programs, system software, and computer program

D. audit the system development process at various points to ensure that the process is properly controlled and managed

36. Which of the following describes the key technology trends that raise ethical issues related to information systems?

A. Tracking of individual mobile phones.

B. Organizations can easily maintain detailed databases on individuals.

C. More organizations depend on computer systems for critical operations.

D. All of the above.

37. _____ can be defined as taking the action that produces the least harm or potential cost.

A. Golden Rule pest

B. Risk Aversion Principle

C. Utilitarian Principle

D. Descartes' Rule of Change

38. The principles of right and wrong that individuals, acting as free moral agents, use to make choices to guide their behaviors are collectively called _____.

A. fair use doctrine

B. intellectual property

C. ethics

D. copyright

39. _____ are tiny graphics embedded in e-mail messages and Web pages.

A. Cookies

B. Web bugs

C. Spyware

D. Google services

40. Intellectual property is subject to protection under _____.

A. patent law

B. copyright law

C. trade secret law

D. All of the above

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Section B: Structured Questions, 4 Questions (Total: 40 Marks)

Instruction: Please write all your answers in the Answer Booklet provided.

QUESTION 1

a) You are the CIO at an insurance firm. The manager of the insurance firm has proposed to invest in expensive and new project management software that would help to increase the efficiency of their IT staff. The idea of improved efficiency sounds good, but is there any way you can evaluate this proposal before deciding to purchase the software? Explain and discuss steps of decision making process.

[5 marks]

b) What is big data? How does it contribute to business value? **[5 marks]**

(Total: 10 marks)

QUESTION 2

a) An IT company has been hired by a small cafe to develop an information system. The owner wishes to create a system that can be used to handle their daily business activities. In your opinion, what is the suitable development methodology for this system? Explain. **[5 marks]**

b) List **FIVE (5)** requirements that must be considered when developing mobile applications. **[5 marks]**

(Total: 10 marks)

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QUESTION 3

a) Nowadays, systems are vulnerable to threats because data is concentrated in electronic form and many procedures are invisible through automation and computerized information systems. List **FIVE (5)** causes of system vulnerability.

[5 marks]

b) The article below shows the prevalence of cybercrime in Malaysia. From your reading of this article, list **FIVE (5)** main causes of cybercrime vulnerability.

[5 marks]

(Total: 10 marks)

Malaysia is sixth most vulnerable to cyber crime

KUALA LUMPUR: Cyber criminals have hit Malaysia to the tune of RM1bil in losses, making the country the sixth most vulnerable to cyber crime.

The Sophos Security Threat Report 2013 listed Malaysia along with several countries, including Hong Kong, Taiwan, Thailand, China, India and Indonesia.

Deputy Communication and Multimedia Minister Datuk Jailani Johari said Malaysians were also facing threats from international criminal organisations which abuse the internet for activities such as drugs, human trafficking, financial fraud and money laundering.

"It is also sad to note that cyber criminals are exploiting the public's thirst for information on the (Malaysia Airlines) flights MH370 and MH17 cases", he said at the 4th Annual Information Security Summit here.

Present was Asian World Summit chairman Tan Sri Megat Najmuddin Megat Khas.

Jailani said cyber crime in the country increased to 10,636 cases last year, from 9,986 cases the previous year.

He said statistics from the Malaysia Computer Emergency Response Team (MyCERT) showed incidents on malicious codes had the highest increase with 1,106 more cases recorded last year, from 645 cases in 2012.

"Incidents of cyber harassment, fraud and spam have shown a slight increase with the highest reduction in intrusion incidents", he added.

Jailani urged all parties, including the government, private sector, critical infrastructure providers and individuals to play their part in lifting cyber security standards.

As such, he said the Click Wisely campaign was a successful initiative to educate and raise awareness for the public to be responsible and ethical when surfing the Internet. - Bernama

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QUESTION 4

a) List **FIVE (5)** steps in an ethical analysis. **[5 marks]**

b) One of the negative social consequences of systems is creating boundaries. List **FIVE (5)** points to describe these boundaries. **[5 marks]**

(Total: 10 marks)

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